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L11: Entry 3 of 7

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DOCUMENT-IDENTIFIER: US 5893908 A  
TITLE: Document management system

Abstract Text (1):

An electronic document management system that takes advantage of advanced document analysis techniques. The electronic document management system may provide automatic archiving of documents and retrieval without the need to navigate through a directory structure or specify a filename. Document comparison is facilitated by automatic retrieval of a previous version of a document. A digital copier alerts a user when a document to be copied already exists electronically within a database.

Brief Summary Text (2):

The present invention relates to an electronic document management system for and more particularly to such a system that exploits advanced document analysis techniques.

Brief Summary Text (6):

Present electronic document comparison procedures, i.e., procedures designed to highlight the differences between two versions of a document, are ill-suited for the hybrid world of electronic and paper documents. They assume that both versions of a document to be compared are available electronically and may be readily identified, conditions that are often not satisfied. For example, geographically dispersed authors using two different word processors may communicate with paper hardcopy drafts. Furthermore, it may be difficult to identify and retrieve a previous electronic version of a document for the reasons given above.

Brief Summary Text (7):

What is needed is an electronic document management system that recognizes the continued use of paper documents while facilitating electronic document filing and document comparison.

Brief Summary Text (9):

The present invention provides an electronic document management system that takes advantage of advanced document analysis techniques. An electronic document management system may provide automatic archiving of documents and retrieval without the need to navigate through a directory structure or specify a filename. Document comparison is facilitated by automatic retrieval of a previous version of a document. Another aspect of the present invention provides that a digital copier alerts a user when a document to be copied already exists electronically within a database.

Brief Summary Text (16):

Another aspect of the invention provides automatically developed queries. For example, a user may present a page or icon as a search key to find an electronic intermediate version of a document. The automatic search includes development of descriptors of the search key and comparison to descriptors of the automatically archived documents to find a best match. The hypertext interface system identifies the best match to the user. The user may then navigate using the hypertext interface to find a final version of the document.

Drawing Description Text (5):

FIG. 4 is a flowchart describing steps of archiving an electronic document in accordance with one embodiment of the present invention.

Detailed Description Text (23):

FIG. 7 is a flowchart describing steps of operating digital copier 104 to alert a user that a document is already available electronically in accordance with one embodiment of the present invention. At step 702, an image of a first page to be fed into copier 104 is captured. At step 704, the document management system forms descriptors of this image. At step 706, the document management system searches descriptor database 304 to find documents having descriptors in common with the captured image. The degree of match, i.e., the number of descriptors in common or a weighted total, is compared to a threshold at step 708. If the degree of match is less than the threshold, copying proceeds as usual at step 710. If the degree of match is greater than the threshold, digital copier 104 provides an alert indication to the user that the document to be copied is available in electronic form. At step 712, digital copier 104 displays options to the user.

Detailed Description Text (24):

FIG. 8 depicts a display 800 generated by digital copier 104 to display options to the user if an electronic version of a document to be copied is available. Display 800 is preferably a touch-sensitive screen. A soft key 802 offers the option of halting document feeding. A soft key 804 allows the user to print the electronic version of the document. A soft key 806 offers the user the option of browsing through the document database using the hypertext interface described above. The hardware and software to implement the functionality of FIGS. 7-8 may be incorporated, e.g., entirely within digital copier 104 or distributed among digital copier 104, computer system 102, and mass storage device 112.

Detailed Description Text (29):

FIG. 11 depicts a display 1100 highlighting non-local changes within a document in accordance with one embodiment of the present invention. A first thumbnail image 1102 shows the previous version of the document. A second thumbnail image 1104 shows the previous version of the document. A paragraph 1106 is highlighted in both images and shown as having shifted position between versions.

Current US Cross Reference Classification (3):707/500